CHAPTER XVII

Wartime Contracts

War imposed tremendous burdens on the American construction industry. Between December 1941 and August 1945, the Corps of Engineers called upon private architect-engineers and constructors to undertake emergency contracts totaling $8.5 billion—one third of all new construction performed in the United States during that period.[1] Wartime demands taxed the nation's building capacity to the utmost. As more and more firms accepted urgent work and as tight labor and materials markets and rigid government controls added to construction risks, contractors became increasingly difficult to obtain. Only by offering more liberal terms and by tapping industry's reserve capacity could the Engineers assemble the technical and managerial talent they needed to get the job done. In meeting his wartime responsibilities as Chief, General Reybold sought contracting methods that were at once effective and expedient.

During Reybold's administration, decentralization was greater than before. Division and district offices, experienced in awarding advertised and small negotiated agreements, ought, he felt, to handle all but the largest contracts. When, on 17 December 1941, Patterson authorized him to negotiate contracts of $5 million and under without approval and to decentralize procurement to the "greatest extent compatible with efficiency and proper safeguarding of the public interest,"[2] Reybold, extending the authority of the field, empowered division engineers to approve negotiated contracts of $5 million or less and district and area engineers to negotiate contracts in amounts up to $2 million and $1 million, respectively. A few months later, he increased the ceiling for districts and areas to $3 million. During March 1942, he enlarged the duties of district offices to include selection of contractors for negotiated agreements. Adopting procedures similar to those used by the Construction Advisory Committee and the Contract Board, districts began collecting data on contractors.[3] Recalling how he went about the task of selection, one district engineer said:

> I set up standards for making recommendations based on size of firm; availability of heavy equipment and its condition; financial situation; previous experience; adequate key personnel, etc. These standards were weighted as they were made and 1st choice was given to the firm with the highest score.

[1] (1) ASF, *Statistical Review: World War II*, p. 84, Appendix C. (2) *Historical Statistics of the United States, 1789–1945*, p. 168. The $8.5-billion total does not include Manhattan District contracts, discussed in ch. XX, below. Nor does it include approximately $550 million in war-related civil projects.

[2] TWX, Patterson to Reybold, 17 Dec 41. 3820 (Natl Def) Part 12.

[3] (1) OCE Circ Ltr Adm 45, 22 Dec 41. (2) Bruner, Outline of Authorizations, 30 Oct 46. (3) OCE Circ Ltrs Constr 226 and 346, 2 Jan and 7 Mar 42.

With the heavy political pressure behind various firms, we found it highly advisable to keep these records on file.[4]

Decentralization enabled General Robins to consolidate contracting groups within the Construction Division. On 15 March 1942, he abolished the Construction Advisory Committee and the Contract Board, and assigned their duties to the new Construction Contract Board, composed of Lt. Col. William M. McKee (chairman), Harry W. Loving, Richard H. Tatlow III, Forrest S. Harvey, and Alonzo J. Hammond, all of whom had expertise in choosing contractors or negotiating contracts. The new board helped district engineers with selection but otherwise confined its activities to contracts involving $5 million or more and to agreements for industrial design and construction.[5]

While "delegating down" selection and award to Robins and the field, Reybold kept a firm hand on policy.[6] Thoroughly pragmatic, he professed a strong preference for fixed-price contracts. In fact, he termed them not only "more economical" but also "more expeditious," and he issued instructions to make awards on a fixed-fee basis only when a fixed-price letting was "impossible."[7] His motive was partly political. As Groves explained: "Lump sum contracts were not more expeditious, nor were they more economical at the time. . . . His directive, however, was sound because of the tremendous political capital which was being made by Senator Truman and others with their erroneous charges about fixed fees."[8] There was another factor the Chief had to weigh. Cost-plus-a-fixed-fee contracts required detailed supervision. To accomplish all or most of the huge wartime program by fixed-fee was administratively impossible.

Cost-Plus-A-Fixed-Fee

By 1942 many were ready to call a halt to fixed-fee contracting. Unfavorable and often one-sided publicity had, by this time, rendered cost-plus-a-fixed-fee synonymous in the American mind with favoritism, extravagance, and waste. Small contractors and specialty groups opposed the fixed-fee system on the grounds that it favored big business.[9] Congressional investigators, putting much of the blame for the high cost of defense construction on fixed-fee contracts, recommended banning them "except in unique cases."[10] On 1 January 1942 the *Engineering News-Record* divulged that Judge Patterson wanted "most, if not all, military construction done under lump sum or unit price contracts." Rumor had it that "fear of Congressional investigations" was "back of this attitude."[11] The Army, to a considerable extent, could now satisfy demands of fixed-fee opponents. Improved planning techniques, more liberal pro-

[4] Ltr, Sturgis to authors, 23 Oct 63.

[5] (1) OCE Circ Ltr 1331, 7 Mar 42. (2) WD Press Release, 7 Mar 42: New Constr Contract Bd. EHD Files. (3) Memo, Hq, SOS, for Reybold, 8 May 42. OCE Legal Div Library, Instrs Re FF Contracts, Book 1.

[6] Reybold Interv, 12 Mar 59.

[7] (1) 1st Ind, 19 Aug 42, on Memo, Hq, AAF, for Reybold, 17 Aug 42. 686 (Airfields) Part 58. (2) Ltr, Reybold to Amberg, 9 Mar 42. 333.1 Part 3.

[8] Groves Comments, XI, 1.

[9] Ltr, Chairman James E. Murray, S Small Business Comm to Amberg, 5 Feb 42. 333.1 (Small Business Firms on Constr Contracts).

[10] H Comm on Mil Affs, 77th Cong, 2d sess, H Rpt 2272, p. 6.

[11] *ENR*, January 1, 1942, p. 11.

curement regulations, and new contracting methods assured wider use of fixed-price agreements. But if the need for fixed-fee contracts had abated, the time had not yet come for a complete return to fixed-price.

The Corps of Engineers made frequent use of fixed-fee contracts during the early months of the war. Munitions plants accounted for the bulk of fixed-fee work, but a few camps, staging areas, depots, and airfields also were built by that method. With industrial projects, the Army had neither the time nor the information necessary for planning. Several other factors contributed to the use of fixed-fee contracts during this period. First, many companies, already overextended, turned down agreements involving great risk or requiring large amounts of capital. Second, using arms and services exerted pressure in favor of the faster method. Third, the need for reducing a backlog of unawarded contracts provided impetus toward fixed-fee contracting.[12]

Doing part of the work by fixed-fee could speed up whole projects. Fixed-price directives often gave the field little more than a week to prepare plans and specifications and advertise for bids. Since it usually took 3 to 4 weeks to survey a site and analyze topographic and geologic data, invitations were frequently so incomplete and full of errors that most prospective bidders backed away. Those who did bid asked prices that were sky high. A practical solution to this problem combined fixed-fee and fixed-price. Colonel Sturgis told how he used this approach:

> In May 1942, lump sum pressure became very heavy on the field. At this time I received a directive for a regulating depot in northern Louisiana for urgent completion to prevent a gigantic railroad jam in the very busy port of New Orleans. This site was located in a wet forest and was none too good. Therefore, I tried another contract approach. This involved a CPFF contract for roads, drainage, and utilities. In the meantime (about 6 weeks), high quality specs were drawn and invitations to bid for lump sum contracts were advertised. Surprisingly low bids resulted for the remainder of the above-ground work, including warehouses, engine "roundhouse," barracks for the operating personnel, and so forth. I believe that this resulted mainly from the CPFF contract having first removed the risks by construction of those features (roads, utilities, etc.) which were the most uncertain, as well as the careful and complete plans and specs upon which the contractor, in his bid, could depend.

Sturgis regarded the success of this method as "a very valuable 'lesson learned' for the future."[13]

During the period of most intensive building activity, from 1 December 1941 to 1 September 1942, the Engineers negotiated fixed-fee contracts totaling almost $800 million.[14] In selecting fixed-fee contractors, Colonel Groves placed a premium on experience. He considered architect-engineers who were "highly qualified specialists in their respective fields, . . . the only companies capable of completing the necessary complicated designs on time."[15]

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[12] (1) Somervell's Testimony, 11 Feb 42. In H Comm on Appns, 77th Cong, 2d sess, *Hearings on Supplemental National Defense Appropriation Bill for 1942*, p. 17. (2) Ltr, Arnold to Reybold, 17 Aug 42. 686 (Airfields) Part 58. (3) Memo, OCE for SOS, 27 Nov 42. 400.13 Part 4. (4) Memo, Control Br, SOS, for Somervell, 14 May 42. 600.914 Part 1.

[13] Sturgis Comments on Purchase Procedure, Incl with Ltr to authors, 23 Oct 63.

[14] Constr PR 56, 31 Aug 42, p. 296.

[15] Ltr, Groves to Architect-Engrs Assn, NYC, 6 Feb 42. 163 (Natl Def) Part 2.

Builders who had creditably completed one emergency job held an advantage in securing another. As a result, firms that had defense experience got preference over firms that, before the emergency, might have seemed better qualified.

Robins and Groves needed every qualified contractor they could get. The Army alone was awarding contracts, both fixed-fee and fixed-price, at a monthly rate of $400 million. The Navy and other federal agencies meanwhile claimed a large share of available talent.[16] Yet many high-caliber engineering and construction firms were not participating fully and some were not participating at all. "This," Groves explained, "was due to the Administration policy, which was in accord with Congressional desires that this work be carried on by organizations geographically located in the area of the work. The result was that many large and competent firms in New York and other big cities were not used to their capacity."[17] At the same time, a host of small constructors and specialty firms, capable of doing good work on a limited scale, were unable to find a place in the program. The plight of these "little men" was a matter of concern on Capitol Hill.

Groves thought he saw a way out of this dilemma. In the fall of 1941 Somervell had the idea of splitting projects into small fixed-price contracts and letting Constructing Quartermasters act as managers. The scheme had the disadvantage of placing too much responsibility on the CQM; but, even so, Somervell insisted on trying it out at a few jobs. After Pearl Harbor, when Groves found it impossible to speed work under this setup, he arranged to complete the projects under construction-manager contracts.

> This system [as he described it] was based on having competent construction organizations manage the actual construction, but they were required to contract, preferably on fixed unit price or fixed lump sum bids, for as much work as possible. They could also let some of the work, such as piping, on a fixed-fee basis. They could also work on cost basis themselves. Their total fee was set in accordance with the anticipated management effort. If the work which had originally been estimated to be let out on a fixed-price basis to another contractor was actually performed by the construction manager's organization, there was no increase in fee allowed.[18]

One construction-manager project was the Ozark Ordnance Works, an ammonium nitrate plant at El Dorado, Arkansas. The contractor, the H. B. Deal Construction Company of St. Louis, did a first-rate job. Another such project was the Cornhusker bomb loading plant at Grand Island, Nebraska, carried through successfully by the Gordon Hamilton Construction Company of Kansas City, Missouri, and several associates.[19] "Actually," Groves stated, "I believe this was the most satisfactory of all arrangements."[20] But, its merits notwithstanding, the construction-manager setup failed to win acceptance. In its stead, Patterson adopted another agree-

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[16] (1) Constr PR 56, 31 Aug 42, p. 296. (2) Testimony of James V. Forrestal, 8 Mar 44. In S Comm on Mil Affs, 78th Cong, 2d sess, *Hearings* on S Jt Res 80, Part 9, p. 716.

[17] Groves Comments, XI, 1.

[18] Groves Comments, XI, 4.

[19] (1) Ltr, Truman to Somervell, 22 Oct 41. QM 095 (H. B Deal & Co.) 1941. (2) 635 (Ozark OW). (3) 635 (Cornhusker OP) I.

[20] Groves Comments, XI, 4.

ment—the architect-engineer-manager (AEM)—a contract Groves aptly called "Mr. Madigan's dream child."[21]

Drawing on his experience with similar agreements in New York, Madigan in December 1941 began trying out the AEM contract on War Department projects. As one Engineer described it, the contract provided for "assignment of a number of relatively small contracts to be managed and supervised by the Architect-Engineer as 'Manager.' "[22] Except for work done faster or better by the architect-engineer-manager's own forces or by subcontract, all construction went forward under separate government fixed-price agreements. The principal contractor furnished "all architect-engineering and other services incident to design, inspection, and supervision of the project."[23] He also helped to place the separate fixed-price contracts. "In other words," Groves explained, "the services furnished by the principal contractor included all of the studies, recommendations, and decisions, subject to approval of the government, connected with the placing of what were essentially subcontracts."[24] Fees under AEM contracts approximated the total that would have been due on separate architect-engineer and construction contracts. Once determined, fees remained fixed, regardless of the extent of work subsequently performed by subcontractors or by small concerns under fixed-price contract to the government. By February 1942, Madigan had perfected the AEM to the point where Patterson was willing to approve it for general use.[25]

Its proponents felt the AEM offered decided advantages over other fixed-fee agreements. It promoted fixed-price contracting and made possible wider participation by small business. It broke down resistance to the use of specialty firms, since the principal contractor's fee bore no relationship to the amount of work sublet. It saved money and time, since the architect-engineer-manager could take off materials and place orders in advance. By substituting government contracts for subcontracts, it gave the Army better control over selection of contractors.[26] "It brings to the job," Madigan asserted, "a type of experienced management and supervision not possible under any other system."[27] But the greatest advantage of all was political. With the climate of congressional opinion in mind, Madigan termed the AEM "so right for us."[28]

Many considered the AEM anything but right. At the first hint that the Army might use it, the *Engineering News-Record* ran a blazing editorial:

> Such procedure runs the risk of being slow and inefficient, for only a relatively few architect-engineer groups are experienced in directing construction operations. This is properly the function of the general contractor who is skilled in the organization and administration of large-scale field activities.
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> But there are other reasons why the pro-

[21] Tel Conv, Groves and Area Engr, W. Va. OW, 5 Mar 42. Opns Br Files, W. Va. OW.

[22] Ltr, Gesler to Amberg, 18 Mar 42. 333.1 (Cong Investigations).

[23] WD, CPFF Form 12, 26 Jun 42, art. II, pars. 5 and 1.

[24] Groves Comments, XI, 5.

[25] (1) OCE, Contract Negotiation Manual (Rev), 15 Aug 44, vol. I, ch. II, sec 2–10, case C (6). (2) Truman Comm *Hearings*, Part 20, app., exhibit 867, p. 8435. (3) *ENR*, February 19, 1942, p. 1.

[26] (1) Incl, 24 Feb 42, with Memo, Groves for Amberg, 26 Feb 42. 333.1 (Cong Investigations). (2) Ltr, Gesler to Amberg, 18 Mar 42.

[27] Memo, Madigan for Amberg, 23 Feb 42. Madigan Files, AEM Data.

[28] Madigan Interv, 18 Jun 56.

posal is fallacious and unrealistic. . . . if a big job is broken up into little pieces for bidding purposes the economy of large-scale operations will be lost. Worst of all, the job will be chaos. Each individual contractor would, of necessity, carry out his part of the work to suit his own needs, not those of the entire project.

The *News-Record* concluded that "the only sensible way" to accomplish the program was under tested forms of contracts.[29] Another AEM opponent, who claimed to speak for "practically all the engineers both in the civil and military service of the War Department," put his case this way:

> The use of this contract in an emergency is basically unsound, it is cumbersome, . . . and virtually unworkable. . . . Any anticipated savings in either time or money under a makeshift contract set-up of this character could be found only in a fool's paradise, and the first to oppose the plan were the architect-engineer-managers themselves who were offered contracts on the basis described. The period of negotiation on one of the early contracts awarded under this plan was thirteen weeks and one day.[30]

Groves, after observing the workings of the AEM on wartime projects and comparing it with the construction-manager form, had this to say: "The AEM type of contract . . . combined the engineer with the contractor and this I never thought to be too sound, as it eliminated the necessary cross check, not only by the engineer but also by the construction manager; the latter was needed to insist upon designs more economical both in time and money."[31]

When, soon after the opposition surfaced, a young reporter from the *News-Record* came to Madigan's office seeking an interview, Madigan showed him the door. "No comment," he recalled saying, "and I don't want you coming in here." But after telling the cub how stupid he considered his boss' editorial, Madigan simmered down and talked. Big construction firms all subcontract, he explained. Otherwise, they could not carry the overhead. The best ones sublet to anyone who can do work cheaper than they themselves can do it. That, he said, was how the construction industry had been run for the last hundred years. The young man was converted.[32] His write-up in the 19 February issue was sympathetic to Madigan's point of view.[33] Three weeks later the editor of the influential trade journal modified his stand. At the time of the first editorial he had not understood that "a contractor or 'manager' " would be part of the AEM team. "The new architect-engineer-manager form of contract for Army construction, as worked out by M. J. Madigan," he now declared, " . . . is an instrument of great promise. . . . It is an ingenious plan and a constructive one." Furthermore, he concluded, "It must be made to work by all parties concerned, for there is no time now for further experimentation."[34]

The Engineers made most frequent use of the AEM setup on munitions projects. The Badger Ordnance Works at Baraboo, Wisconsin, furnished an example of how the contract worked. Mason & Hanger of New York, formerly contractors at the New River and Louisiana Ordnance Plants, began work under an AEM agreement in February

[29] *ENR*, January 1, 1942, p. 11.
[30] Incl, 28 Jan 42, with Memo, Madigan for Amberg, 23 Feb 42. Madigan Files, AEM Data.
[31] Groves Comments, XI, 4.
[32] Madigan Interv, 18 Jun 56.
[33] *ENR*, February 19, 1942, p. 1.
[34] *ENR*, March 12, 1942, p. 87.

1942. The Hercules Powder Company held the operating contract. Hercules prepared designs for all manufacturing units, comprising about 65 percent of the project; Mason & Hanger drew plans for the remaining facilities including warehouses, shops, roads, railroads, and utilities. Using the plans and specifications prepared by the architect-engineer-manager, the area engineer, Maj. Wayne O. Houck, let separate fixed-price contracts in amounts of $500,000 or less. Mason & Hanger built roads, temporary water and sewer facilities, power lines, shops, and warehouses and began construction of manufacturing units by force account. Moreover, they supervised all construction, furnished building materials for all work at the project, installed operating machinery, and maintained roads and utilities. The *Engineering News-Record* reported that close co-operation between Mason & Hanger, Hercules, and Major Houck had made for excellent progress at the Baraboo job.[35]

A shortage of contractors who, like Mason & Hanger, could act as combined architect-engineers, managers, and constructors prevented the Corps from using the agreement widely. A single organization familiar with large-scale engineering and construction operations could best carry out an AEM contract. Only such titans as the Austin Company, E. B. Badger, Fraser-Brace, the Chemical Construction Corporation, and DuPont could assume the entire responsibility of an AEM. Between them, these six concerns held nineteen AEM contracts totaling almost half a billion dollars. Additional architect-engineer-managers came from the ranks of seasoned joint venturers; for instance, General Robins combined H. K. Ferguson and the Oman Construction Company, firms that had worked together at the Wolf Creek plant and the Milan Ordnance Depot, for the Gulf Ordnance Plant. Most often the Construction Contract Board created management teams by "shotgun marriages" of reputable architect-engineers and constructors who had not previously acted in concert. This last expedient afforded the only means of obtaining architect-engineer-managers in any quantity. But since it entailed the risk of giving important projects to several contractors who might not be able to co-operate, the Engineers used it sparingly. Thus, while the AEM contract made work for some smaller units of industry, it afforded at best only a partial solution to the problem of maximum utilization.[36]

Fixed-fee contractors, including architect-engineer-managers, completed wartime projects costing more than $4.5 billion. At the peak of construction in 1942, 400 fixed-fee contracts accounted for almost one-quarter of the value of all contracts on the books; thereafter, the proportion of fixed-fee work declined steadily. Some 120 fixed-fee contracts were outstanding on 31 August 1943. Five months later, the number had dropped to approximately 80. As the volume of construction diminished and as expansion and alteration made up an increasing share of the program, the Engineers let only a negligible number

[35] (1) 635 (Badger OW) I. (2) H. W. Richardson, "How an AEM Contract Works," *ENR*, July 30, 1942, pp. 75–78.

[36] (1) OCE, Military Constr Contracts, Part II, sec 1. (2) Testimony of W. S. Broderick, Broderick and Gordon, 9 Jun 43. In Truman Comm *Hearings*, Part 20, pp. 8288–8291.

of new fixed-fee contracts. In January 1945, nine out of ten current fixed-fee contracts were supplements to original contracts of this type.[37]

Curtailment of fixed-fee contracting convinced congressional critics that it was entirely unnecessary. On 14 January 1943 Representative Louis L. Ludlow keynoted the renewed attack in a statement to the House. "There is no doubt," he said, "that millions upon millions of dollars can be saved by relegating that form of contract to oblivion, where it belongs."[38] The wave of opposition reached its crest on 21 September 1943, when Senator Homer Ferguson introduced a resolution to prohibit further use of the fixed-fee contract.[39]

While "recognizing the shortcomings of the cost-plus-a-fixed-fee contract," the Engineers wished to have the right to use whatever form of agreement would best serve the Army's needs.[40] So did Under Secretary Patterson. Commenting on the Ferguson resolution, he warned that "if use of the fixed-fee contract were substantially restricted, it would deprive us of necessary sources of war production or would require the making of fixed-price contracts on artificial and unsound bases."[41] The Navy Department and the Maritime Commission joined the fight against restrictive legislation.[42]

Senator Ferguson's resolution failed. Nevertheless, the ground swell of congressional opposition that culminated in his proposal helped to hasten the adoption of a more popular contracting system.

Modified Fixed-Price

The Corps of Engineers did a much larger proportion of emergency construction by fixed-price contracts than had the Quartermaster Corps—50 percent as opposed to 20.[43] According to Groves, "The primary reason for this was that higher level decisions were being made more promptly, and that, as the war proceeded, the construction organization became more accustomed to the problems they faced. The War Department was no longer feeling its way."[44] But the change was not owing to the War Department alone. Congress, by authorizing a new federal code for wartime contracts, removed many of the legal obstacles to fixed-price contracting.

Advance planning had been the first step toward a return to fixed-price contracts. Thanks to Somervell's foresight, The Quartermaster General could, at the time of the transfer, hand over to General Robins layouts for sixteen camps designed to house 629,000 men. The Engineers succeeded in letting all but one of these projects on a fixed-price

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[37] (1) OCE, Military Constr Contracts, Part II, sec 2. (2) Constr PR 56, 31 Aug 42, p. 296. (3) 161 Part 5. (4) Statement of USW Patterson, 7 Mar 44. In S Comm on Mil Affairs, 78th Cong, 2d sess, *Hearings* on S Joint Res 80, Part 9, p. 670. (5) Daily Log, Proc Div, Adm Br, OCE, 30 Jun 45. OCE, Proc Div, Daily Log.

[38] 89 *Cong. Rec.* A121.

[39] *S Joint Res 80*, 78th Cong, 1st sess.

[40] Draft of Ltr (prep by OCE) Stimson to Chairman Robert R. Reynolds, S Comm on Mil Affs, 19 Nov 43. 161 Part 5.

[41] Statement of USW Patterson, 7 Mar 44. In S Comm on Mil Affs, 78th Cong, 2d sess, *Hearings* on S Joint Res 80, Part 8, p. 671.

[42] S Comm on Mil Affs, 78th Cong, 2d sess, *Hearings* on S Joint Res 80, pp. 654–56.

[43] (1) OCE, Mil Constr Contracts, Part II, sec 2. (2) Constr Div, OQMG, Contracts Awarded or Approved, 12 Nov 41, XIII.

[44] Groves Second Draft Comments, XIX, 4.

basis. Encouraged by these results, Reybold recommended and Somervell approved a continuation of advance planning for camps and airfields. Projects advance planned by the Corps of Engineers and subsequently built under fixed-price contracts included Camps Ellis, McCain, Howze, and Van Dorn.[45] Attesting to the success of this method, General Reybold wrote: "Advance planning . . . has contributed in high degree to a reduction of the impact of the 1942 program on the national construction capacity."[46] As far as it went, this statement was true, Groves felt, but he differed sharply with Reybold on the fixed-price versus fixed-fee issue. "There is no question in my mind," he said, "but what these fixed-price jobs were more expensive in many instances than would have been fixed-fee work. Many disadvantages of fixed-price work are not easily apparent to those . . . not responsible for performance. They were very apparent to me throughout the whole progress of the work."[47]

Plans alone did not assure a fixed-price agreement. The Engineers also had to find contractors able and willing to do the work for a reasonable sum, and in this they encountered increasing difficulty. From experience they knew that a single contract offered the "greatest speed in construction and ease of administration."[48] But by 1942 most individual firms or experienced combinations capable of handling entire projects were swamped with work. Reduced competition among the remaining ones accelerated the already pronounced trend toward excessive bids. Moreover, many contractors quite capable of tackling $5-million jobs lacked the capital and experience for $25-million single contracts.[49]

Seeking both to stimulate competition and to bring more construction firms into the program, Robins and Groves began to break large projects into smaller bidding units or "increments." These breakdowns might follow one of two patterns. The first, used to some extent by Somervell in 1941, split a project into subprojects according to the character of work involved—buildings, utilities, grading, and so forth. The second divided it geographically; each bid included all the work in an area, with the possible exception of utilities. The first kind of breakdown enabled the government to employ experts in various fields of construction, to use unit price more extensively, and, thus, to save money. It nevertheless proved too slow for urgent projects.[50] "The potentialities for interference between various subcontractors are enormous," Colonel Groves observed.[51] The area breakdown, while more expensive, proved faster and therefore more satisfactory in wartime.

During the first two months of the war, General Robins let the field decide in each case whether it was "more ad-

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[45] (1) Constr PR's 47 and 51, 15 Mar and 30 Apr 42. (2) Ltr, Somervell to Arnold, 13 Jun 42. 686 (Airfields) Part 56. (3) WD Ltr AG 601.1 (12-13-41) MC-D to TQMG, 15 Dec 41. 652 II. (4) OCE, Mil Constr Contracts, Part II, sec. 2.

[46] Memo, Reybold for Somervell, 9 Jul 42. 600.1 Part 13.

[47] Groves Comments, XI, 6-7.

[48] Memo, Reybold for Somervell, 9 Jul 42. 600.1 Part 13.

[49] Ltr, Leavey to SWD, 20 Dec 41. 652 (Camp Swift).

[50] (1) Memo, Div Engr, SAD, for Robins, 15 Dec 41. 652 (SAD). (2) Ltr, Leavey to Div Engr, SAD, 22 Dec 41. 652 (Camp Rucker) I.

[51] Memo, Groves for Robins, 20 Dec 41. 652 (SAD).

visable to advertise the project as a single unit or to break it up into its component parts."[52] Those who chose the first course had trouble obtaining even the feeblest competition. To illustrate, two combinations bid on Camp Gruber, Oklahoma. The low bid exceeded the Engineer estimate of $24 million by $4 million, and the high, by $10 million. Breakdowns, on the other hand, produced a fairly large number of bids and more reasonable prices. Therefore, on 11 February 1942, General Robins told the field to split up all sizable cantonment projects and permit contractors to bid on as many increments as they wished. By making the ceiling on increments identical with the divisions' $5-million contracting authority, he further decentralized awards. Robins' order brought more contractors into the camp-cantonment program.[53]

Even when plans were available and bids were incremental, standard fixed-price contracts were too slow, inflexible, and risky for a period of emergency. With the declaration of war, prospects for ordinary fixed-price bids had turned from bad to worse. Dresser estimated that contingency items accounted for 25–33 percent of bid prices in the first quarter of 1942.[54] More than ever, contractors feared unexpected delays that might make them liable for damages and unanticipated costs that might put them in the red. Some worried about uninsured losses from enemy attack.

Every change produced by the war effort makes the continuation of normal methods of construction more difficult and more nearly impossible [Groves noted in February 1942]. In the matter of procurement alone, the steady increase in the number of materials which are difficult to obtain and the steadily increasing number of items whose distribution must be controlled by the Government makes contract work today . . . a very different operation from that to which the country and the industry have been accustomed in the past.[55]

These obstacles might have proved insuperable had Congress not passed the War Powers Act of December 18, 1941, under which the President could authorize any government department to make, modify, or amend contracts "without regard to the provisions of the law" when "such action would facilitate the prosecution of the war." Congress placed but two limitations on the powers of the President; it prohibited percentage contracts and forbade violation of the laws regulating profits.[56] On 27 December 1941, Roosevelt delegated his authority under the act to Secretary Stimson.[57] To induce contractors to take fixed-price jobs, the government had to assure them that if they did not make a profit they would at least break even. War Powers legislation enabled the Engineers to offer this assurance.

Immediately after Pearl Harbor, field offices in areas of possible enemy attack had trouble obtaining satisfactory bids. Banks and other lending institutions refused to stake contractors in potential danger zones. Subcontractors and suppliers were hesitant about dealing with fixed-price contractors. The few firms

[52] Ltr, Leavey to SAD, 20 Dec 41. 652 (Camp Pickett).

[53] (1) 652 (Camp Gruber) I. (2) 685 (Camp Atterbury). (3) TWX, OCE to NPD, 11 Feb 42. 652 (Portland DO).

[54] (1) Smith, *The Army and Economic Mobilization*, pp. 287–88. (2) Dresser Interv, 2 Apr 57.

[55] Memo, Groves for Amberg, 26 Feb 42. 333.1 Cong Investigations Folder: General Rpt of Improvements on Constr Procedures.

[56] 55 *Stat.* 839.

[57] OCE Circ Ltr 1048, 12 Jan 42, and Incl, 30 Dec 41.

that did compete for prime contracts included enormous contingency items in their bids. The cause of this predicament was unmistakable: destruction by the enemy was a noninsurable risk, and fixed-price agreements, unlike fixed-fee, gave contractors no protection against uninsured losses. In the War Powers authority to modify contracts, General Reybold found a means of reassuring bidders. His adoption of a fixed-price clause guaranteeing reimbursement for enemy-inflicted damages permitted contractors to resume their normal relationships with creditors and subcontractors and to lower their bids. The clause served until March 1942, when Congress set up the War Damage Corporation, with which contractors could insure themselves against loss or damage resulting from enemy operations.[58]

The Chief soon turned the War Powers authority to a broader purpose—that of suspending penalties for delayed performance. Contractors beset by priorities regulations, transportation tie-ups, and labor shortages despaired of meeting completion dates. Yet their contracts made them liable for liquidated damages, an amount assessed for each day of delay in lieu of actual damages, as required by law. Seeking to remove his contractors from this untenable position, Reybold on 9 July 1942 deleted the liquidated damages provision from all construction contracts.[59] This proved to be only a half-measure, for by well-established principles of law, a contractor who failed to finish on time was liable for damages even though his contract was silent on the point.[60]

By extending contractors' performance time, Reybold gave them more positive relief. Extensions had previously been possible under the Delays-Damages clause, which permitted the contracting officer to grant additional time when delays resulted from "unforeseeable causes beyond the control and without the fault or negligence of the contractor."[61] The somewhat ambiguous language of this provision might rob a contractor of an extension to which he was, in all fairness, entitled. Besides, it led to endless squabbles with the General Accounting Office. To eliminate any question of legality and to cut through administrative red tape, Reybold decided to bypass the Delays-Damages provision and grant extensions pursuant to the War Powers Act, amending contracts to extend performance time whenever a contractor had "attempted, in good faith, to complete his War contract within the time specified."[62] Some Engineers felt his policy was too liberal.[63] Be that as it may, generous use of War Powers extensions lightened administrative work and won greater co-operation from industry.

Just as the War Powers Act made possible extensions of time, so it opened a way to correct mistakes that crept into hurriedly written agreements—mistakes

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[58] (1) Ltr, Reybold to Representative R. E. Thomason, 31 Dec 41. 600.1 Part 11. (2) Memo, Reybold for Somervell, 16 Jun 42. 161 I. (3) TWX, OCE to Div Engrs, 2 Jan 42. 3820 (Natl Def) Part 12. (4) 56 *Stat.* 175. (5) OCE Circ Ltr 1962, 19 Aug 42.

[59] OCE Circ Ltr 1805, 9 Jul 42.

[60] OCE Circ Ltr 2347, 1 Apr 43.

[61] U.S. Standard Form 23, Art 9, 14 Sep 40 (Rev.), sub: Contract (Constr).

[62] Lt. Col. Josef Diamond, Comments on Contracts and Claims, 28 Mar 44. 616 Part 6. Cited hereinafter as Diamond, Contracts and Claims.

[63] Ltr, MRC to Dist Engrs at Memphis, Vicksburg, and New Orleans, 13 Apr 45. 161 (LMVD).

that ofttimes meant the difference between profit and loss. Before the war, the General Accounting Office had authority to remedy mutual mistakes or those made by the government, but neither the Comptroller General nor the courts could cancel out a contractor's error. After passage of the War Powers Act, the War Department could amend contracts "to correct not only mutual mistakes, but also unilateral mistakes, that is, mistakes made by the contractor alone." The Engineers made frequent use of this authority to release contractors from erroneous bids and to avoid involved dealings with the General Accounting Office.[64]

The War Powers authority also enabled the Engineers to subsidize contractors who were in financial trouble. Caught between rising costs and his commitment to perform at a fixed price, a contractor might do one of two things: default or risk bankruptcy. Either course was bad from the government's point of view. The first interrupted construction and the second reduced the already scant supply of builders. As a matter of self-interest, the Engineers adjusted contract prices upward whenever losses threatened. At worst, contractors came out even.[65]

An important result of the War Powers Act was a lump sum contract that approached the fixed-fee in flexibility and absence of risk but did not come under the law that held fixed-fee profits to 6 percent. More liberal provisions induced more contractors to accept military jobs and carry them through. New companies and marginal producers, too inexperienced for fixed-fee work and too weak for regular fixed-price contracts, entered the field. Default became a thing of the past. Reduced contingency items reflected the extent to which the Army assumed contracting risks. More costly than its prototype, the new agreement nevertheless supplied incentives that brought the building industry to peak production. It also helped to mollify critics of cost-plus-a-fixed-fee contracts.

Competition and Negotiation

If the Engineers wished to allay hardships, they also wished to hold down contract prices. The question was how to do it. General Robins sought the answer in a continuation of the quasi-competitive system of award used during the defense period. On 5 January 1942 he announced that the Corps would open fixed-price contracts to public competition "unless to do so would jeopardize the interest of the United States." Award would ordinarily go to the lowest qualified bidder; but if no bid was reasonable, negotiators would go to work. When haste precluded public advertisement, the Corps would solicit bids from a number of prequalified firms and negotiate with the low bidder.[66]

Two months after Robins' announcement, the War Production Board prescribed a different procedure. On 2 March 1942 Donald Nelson discarded formal advertisement in favor of negotiation. Emphasizing the need for speed

[64] Diamond, Contracts and Claims.

[65] (1) *Ibid.* (2) Testimony of Gen Somervell, 22 Jun 43. In S Comm on Appns, 78th Cong, 1st sess, *Hearings on Military Establishment Appropriation Bill for 1944*, p. 33.

[66] OCE, Memo for the Information of Architect-Engineers and Contractors, 5 Jan 42. EHD Files.

and selectivity, he asked negotiators to apply the following principles:

> Primary emphasis shall be upon securing delivery in the time required by the war program.
>
> Contracts shall be placed so as to conserve, for the more difficult war production problems, the facilities of concerns best able, by reason of engineering, managerial, and physical resources, to handle them.
>
> Contracts shall be placed with concerns needing to acquire the least amounts of additional machinery and equipment for performance of the contracts.

Consideration of price came last. "Where consistent with the required speed," they were to solicit informal quotations and give preference to low offerers.[67]

Nelson made this radical departure from traditional government procedure for two reasons. First, he believed that "the right price was far less important than speeding up production." Negotiation offered a means not only of expediting awards but also of choosing fast performers. Second, the wartime program required the services of virtually all contractors, including high-cost producers. Competitive conditions permitted the most efficient firms to undercut the rest and take whatever jobs they wanted. Negotiation, on the other hand, enabled the government to allocate contractors according to the size, complexity, and importance of the job, and thus to save the best firms for the most exacting work.[68]

The Engineers refused to accept mandatory negotiation of construction contracts as a necessary measure. They preferred to let contracting officers choose the method of award that seemed best in each case. Robins at first disregarded Nelson's order, assuming that it applied only to supply contracts, but, on 9 April 1942, Somervell directed that construction, too, would henceforth be negotiated.[69] At the outset, the Engineers thought Somervell's directive a mistake, and they continued to think so. Colonel Kelton expressed the general attitude of Engineer officers in 1944, when he stated: "Headquarters, Army Service Forces, . . . has always been impressed primarily with considerations affecting supply. . . . The result is not always happy because construction often has peculiar circumstances and conditions which render the application of Procurement Regulations, drafted with prime consideration of supply, inapplicable or contrary to the Government interest."[70]

Reluctantly, the Engineers suspended formal advertisement and substituted a system of competitive negotiation, under which they solicited quotations from lists of selected bidders, whose qualifications they had checked beforehand. As many as thirty or thirty-five got invitations to bid. Others who could qualify were admitted upon request. In order to protect the government during negotiations, contracting officers opened the bids privately instead of publicly as before. While the low bidder usually had the inside track, if he was overloaded or

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[67] 7 *F.R.* 1732 (4 March 1942).

[68] Nelson, *Arsenal of Democracy*, pp. 368–69. Copyright 1946 by Harcourt Brace Jovanovich, Inc.

[69] (1) Ltr, Constr Div to M. E. Greenberg Co., Minneapolis, Minn., 7 Mar 42. 163 Airfields. (2) Ltr, Itschner to CAA, 11 Nov 42. 161 (Airfields) Part 1. (3) SOS, PB General Directive 34, 9 Apr 42. OCE, Legal Div Lib, "Directives 1942."

[70] Ltr, Kelton to Reybold, 23 Mar 44. 161 (PD) Part 2.

needed for a tougher job, the Engineers might bargain with another firm.[71]

Suspension of formal advertisement had an immediate effect on bonding policies. Before the emergency, the law required government contractors to furnish bid, performance, and payment bonds.[72] These bonds provided a check on irresponsible bidders, protected the United States against default, and guaranteed payment of contractors' obligations. Contractors passed the expense of bonding on to the government in their contract prices. As early as April 1941, Congress sanctioned the waiver of bonds on fixed-price contracts.[73] As long as open competitive bidding was the rule, Patterson refused to exercise this authority but the negotiation order reversed his attitude. Bid bonds had no application outside the competitive system, and careful prenegotiation checks of contractors' qualifications reduced the need for performance and payment bonds. On 28 May 1942, Somervell directed the chiefs of supply services to waive performance and payment bonds when the contractor was "capable and experienced" and financially sound.[74] Accordingly, General Reybold told divisions and districts to discontinue bid bonds entirely and to waive performance and payment bonds where such action would facilitate the war effort. Waiver made possible savings in time, money, and administrative effort and paved the way for use of small firms unable to meet requirements of surety companies. Bonds became the exception rather than the rule.[75]

Mandatory negotiation roused fierce opposition, and one of the earliest attacks centered on the new bonding policy. A riot of protest greeted the announcement that bonds would be waived. Surety companies, whose business was mainly with government contractors, petitioned for reinstatement of bonding requirements. They questioned if the Army could assess contractors' financial responsibility as well as experienced underwriters, and they recommended bonding as the best means of weeding out contractors who might default. More objections came from materialmen and equipment dealers, who for many years had depended on bonding companies to establish their customers' credit. Prevented by ceiling prices from recouping losses on one transaction by higher profits on another, they refused to supply contractors not covered by payment bonds.[76] Faced with a boycott, Somervell on 28 August 1942 modified his earlier directive by instructing the services to require payment bonds except from blue-chip companies.[77] But not until the construction program was almost over did the Army reinstate the requirement for performance bonds.[78]

More formidable opposition to negotiation soon developed. Under the old system of public advertisement, contractors obtained most of their informa-

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[71] (1) OCE Circ Ltr 1559, 4 May 42. (2) Ltr, Reybold to Pres., MRC, 15 May 45. 161 (MRC) Part 1.

[72] (1) 20 *Stat.* 36. (2) 22 *Stat.* 487. (3) 49 *Stat.* 793.

[73] 55 *Stat.* 147.

[74] SOS, PR 19–T, May 28, 1942.

[75] OCE Circ Ltr 1786, 4 Jul 42.

[76] (1) Ltr, Dist Engr, Atlanta, Ga., to the Div Engr, SAD, 10 Aug 42, and 1st Ind, SAD to OCE, 13 Aug 42. 188 (Atlanta DO) Part 1. (2) Resolution, Building Material Dealers' Credit Assoc., Portland, Ore., 5 Aug 42. 168 (Portland DO).

[77] (1) TWX, OCE to SAD, 10 Sep 42. 168 (Atlanta DO) Part 1. (2) OCE Circ Ltr 2046, 19 Sep 42.

[78] Diamond, Contracts and Claims.

tion on job possibilities from notices in trade journals and from plan rooms operated by the AGC and construction news services; public openings guaranteed impartial award and gave contractors an opportunity to compare their quotations with competitors'. Mandatory negotiation stopped federal advertising and made plan rooms unnecessary as a means of government contact with prospective contractors. General Reybold pointed out that "a public bid opening would seriously hamper, if not entirely defeat, whatever opportunity the contracting officer might have . . . to reach a fair price with the apparent low offerer."[79] Thus, the wartime system of award cut contractors off from information they considered essential to the conduct of their business and deprived trade publications of a major source of revenue.[80]

The AGC and the trade press campaigned against this threat to their common interests. Construction journals ran articles implying that the Corps juggled proposals in order to give contracts to favored firms. Local AGC chapters pressed district engineers to relax the secrecy surrounding negotiations and asked Congressmen to intervene. The 1943 AGC convention adopted a resolution favoring a return to open competitive bidding and petitioned Nelson to withdraw his order. This situation not only subjected the Engineers to unfavorable publicity, but it also hurt their relations with the construction industry.[81]

Expressing a desire to go along with the industry, Robins promised to resume public competition "as soon as the conditions permit." But, he explained, "Under War Production Board Regulations . . . we cannot go into formal advertising."[82] Throughout the Corps, pressure was mounting in favor of a change. By 1944, many felt that mandatory negotiation was indefensible. Robins' special assistant, Douglas I. McKay, summed up the case for a change:

> The time has come to revert generally to formality in respect to the opening of bids. . . . Else, bidders will be discouraged, and their responsiveness to our invitations will decline. Also, it will be increasingly difficult to know or gage the fair market value of work awarded . . . and finally, I believe that public reaction to continuance of the informal system of quoting (where it can be avoided without substantial and obvious detriment to the Government's interests) will be adverse and will lead to suspicions of impropriety or worse no matter how unjust those suspicions may actually be.[83]

Toward the end of March 1944, although Nelson's order was still in force, General Robins summoned division en-

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[79] (1) Ltr, Reybold to Senator David I. Walsh, 11 Jul 45. 163 Part 15.

[80] (1) Ltr, Memphis Chapter, AGC, Memphis, Tenn., to Representative Clifford Davis, 25 Mar 44. 161 Part 6. (2) Memo, Antes for Robins, 24 Mar 44. 163 (NED). (3) Memo, Reybold for Somervell, 20 Jul 45. 163 Part 15.

[81] (1) Ltr, Constr Div, OCE, to Div Engr, UMVD, 21 Aug 42. 333.1 (St. Louis DO). (2) Memo, Antes for Kuldell, 24 Mar 44. 163 (NED). (3) Notice, Ark. Chapter, AGC, Little Rock, Ark., to Members and Assoc Members of Chapter, 11 Jun 45. 163 Part 15. (4) Ltr, Memphis Chapter, AGC, Memphis, Tenn., to Rep Clifford Davis, 25 Mar 44. 161 Part 6. (5) Memo, Adm Div, OCE, for Chief, Purchases Div, ASF, 27 Jul 43. 161 Part 4.

[82] Robins' Testimony, 7 Jun 42. In H Comm on Appns, 78th Cong, 1st sess, *Hearings on Military Establishment Appropriation Bill for 1944*, p. 332.

[83] Memo, McKay for Robins, 27 Mar 44. 163 (NED).

gineers to Washington for consultation. The result was a decision to discontinue the procedures that had caused so much complaint and ill-will. Robins directed the field to resume formal openings and to award "consistently to the lowest responsible bidder."[84] Formal advertisement was still forbidden, but plan rooms began to operate freely again. Contractors easily obtained advance notice of new jobs, and since the Engineers permitted any qualified firm to bid, selective lists became more or less meaningless. Thus, the Corps to all intents and purposes reverted to open competitive bidding.[85]

This system operated to the satisfaction of both Engineers and industry for more than a year. Then, in May 1945, WPB reissued its original directive, which, in fact, it had never rescinded, and Nelson insisted that the Engineers comply. Forced to repudiate previous instructions to the field, General Reybold hastily issued a "reaffirmation" of Nelson's principles to the districts and divisions. Furnishing information to plan rooms stopped, and private openings resumed. Reybold publicly justified this move as a war measure, but his statements did not go over with contractors, who had openly competed for construction work during 14 months of war.[86]

Industry bitterly opposed this latest attempt to enforce Nelson's negotiation order. Trade unions and associations of suppliers joined contractors in a feverish campaign. *Dodge Reports* urged subscribers to write their Congressmen. Petitions, resolutions, and letters of protest flooded the Capitol and the Pentagon.[87] The labor press heaped abuse on the Engineers. One hostile paper accused the Corps of holding "star chamber sessions" to consider bids and thereby opening "the door to all sorts of chicanery and manipulation."[88] Alarmed, General Reybold on 20 July informed Somervell that the Engineers had to reverse course. Somervell raised no objection. New instructions to the field restored public openings and made plans available to any interested party.[89] Thus, by the end of the war, the Corps had, with the one exception of public advertisement, already reinstituted peacetime methods of award.

Renegotiation

Critical shortages, inflationary pressures, crash schedules, and all-out production—under such circumstances neither competition nor negotiation could be wholly effective. Agreements, whether fixed-fee or fixed-price, had to take into account the same emergency conditions. Irrespective of contract forms and methods of award, the price of war work ran high. The fifteen billion dollars expended by the War Department for defense and war construction had two

[84] Ltr, Robins to Div Engrs, 28 Mar 44. OCE, Proc Div Files.

[85] (1) Ltr, Reybold to Pres, MRC, 15 May 45. 161 (MRC) Part 1. (2) Ltr, Dallas Chapter, AGC to Robins, 6 Jun 45. 163 Part 15. (3) Ltr, Dist Engr, Little Rock, Ark., to Reybold, 4 Jun 45. 161 (Little Rock DO).

[86] (1) 10 *F. R.* 5512 (12 May 1945). (2) Ltr, Reybold to Pres, MRC, 15 May 45. 161 (MRC) Part 1. (3) Ltr, Reybold to Div Engrs, 8 Jun 45. 161 Part 9.

[87] 163 Part 15.

[88] Incl, with Ltr, Paul Smith Constr Co, Tampa, Fla., to Reybold, 17 Jul 45. 163 Part 15.

[89] (1) Memo, Reybold for Bragdon, 20 Aug 45. 163 Part 15. (2) Memo, Reybold for Somervell, 20 Jul 45. 163 Part 15. (3) Ltr, Reybold to Div Engrs, 21 Jul 45. OCE, Proc Div Files.

components—profit and cost. Cost was by far the more important from a budgetary standpoint. Nevertheless, throughout the war public attention focused on profits.

The problem was not new. Virtually every war in history had had its profiteers, and the most recent, World War I, had produced its crop of war millionaires. From time to time since the 1918 Armistice, Congress had considered the question of war profits. The munitions industry investigations of the 1930's gave rise to sentiment in favor of taking the profit out of war. Efforts to restrict earnings on military contracts resulted in the Vinson-Trammell Act of 1934, which limited profits on naval vessels and aircraft to 10 percent of the contract price, and in the Act of April 3, 1939, which extended the Vinson-Trammell law to army aircraft. With the defense program, Congress set profit ceilings for various types of contracts, including those already covered and fixed-fee construction agreements. Passage of the excess profits tax on 8 October 1940, however, was its first move toward uniform control of emergency profits.[90]

After Pearl Harbor the problem assumed more serious proportions as wartime demands broadened opportunities for unconscionable gains. The War Department began to study ways of limiting contractual earnings. Under Secretary Patterson thought the ideal solution lay in close pricing, but unpredictable costs made this almost impossible. Early in 1942 the Engineers pioneered in profit control, by experimenting with renegotiation clauses. Upon the organization of the Services of Supply in March, General Somervell set up a cost analysis section to look into earnings by war contractors.[91]

Meanwhile, Congress was talking of tighter limitations. Several bills to restrict contractual earnings failed during the winter of 1941–42. Stimson, Somervell, and Robins opposed these measures, maintaining that the excess profits tax gave the government ample protection and that any further limitation on profits would make contractors less willing to accept work.[92] Representative Francis Case finally forced the issue when, on 28 March 1942, he succeeded in amending an appropriation bill to include a flat 6-percent limitation on contractual profits.[93] Opposing this measure as unworkable and unwise, the War and Navy Departments pointed out that a flat 6-percent limitation was grossly unfair—6 percent on a $50,000,000 contract was a handsome profit, while the same percentage on a $100,000 job was peanuts; and they questioned if there were enough accountants in the country to check profits on all federal contracts. Underlying their objections was the belief that statutory limitation of profits was

[90] (1) Robert P. Patterson, "Renegotiation," *Dun's Review*, January 1943, p. 8. (2) 48 *Stat.* 505. (3) 53 *Stat.* 560. (4) 54 *Stat.* 677. (5) 54 *Stat.* 1003. (6) Smith, *The Army and Economic Mobilization*, p. 351.

[91] (1) Patterson's Testimony, 19 Mar 42. In H Comm on Naval Affs, 77th Cong, 2d sess, *Hearings on Profits on Naval Contracts*, pp. 2479–82. (2) Memo, SOS for Reybold, 3 Jul 42. 161 Part 1. (3) Memo, OCE for SOS, 19 May 42. 600.93 (Airfields) Part 5. (4) Somervell's Testimony, 31 Mar 42. In S Comm on Appns, 77th Cong, 2d sess, *Hearings on Sixth Supplemental National Defense Appropriation Bill for 1942*, pp. 24–25.

[92] (1) QM 600.1 (Contracts–Misc) IV. (2) Memo, Somervell for Stimson, 24 Oct 41. QM 161 1941. (3) Ltr, Stimson to Chairman, H Ways and Means Comm, 19 Jan 42. 161 I.

[93] S Subcomm of the Comm on Appns, 77th Cong, 2d sess, *Hearings* on H R 6868, Part 2, p. 22.

penny-wise and pound-foolish.[94] As Navy Under Secretary Forrestal explained, because the government relied on the profit motive to promote efficiency, unnecessary costs would "be even more harmful than undue profits."[95] Despite these arguments, Congress insisted on a safeguard "to prevent the home front from becoming a happy hunting ground for war profiteers."[96] The Senate Appropriations Committee, with help of the Army, Navy, Maritime Commission, and WPB, hastily worked out a compromise measure, providing for renegotiation of war contracts.[97]

The first Renegotiation Act, approved on 28 April 1942, directed the Secretaries of War and Navy and the Chairman of the Maritime Commission to insert a renegotiation clause in all contracts and subcontracts amounting to $100,000 or more and to recover excessive profits by one or a combination of the following methods: reducing the contract price, withholding payments due the contractor, or requiring the contractor to make restitution. The act provided for renegotiation of each individual contract and thus gave contractors no opportunity to recoup losses on one contract by high profits on another. With official prompting, Congress on 21 October 1942 amended the renegotiation law. All firms whose government contracts totaled $100,000 during a fiscal year became liable for renegotiation. The revised legislation made possible renegotiation on an overall basis, that is, on the basis of the contractor's net earnings on all federal business during one fiscal year. Congress further authorized government agencies to exempt contracts from renegotiation if provisions were otherwise adequate to prevent excessive profits.[98]

The Renegotiation Act made possible two methods of limiting profits. The more obvious one was to recapture profits already earned. The other, close pricing, impressed contracting agencies as the more important and, in light of the excess profits tax, as the chief justification for the act.[99] Renegotiation placed the government in a stronger bargaining position at the time of original negotiations and made contractors more willing to adjust their prices downward during performance. The Engineers adopted the policy that, whenever possible, "excessive profits should be eliminated through price reductions rather than by subsequent refunds after they . . . had been realized."[100] But in actual practice, recapture proved more feasible than close pricing. "Through force of circumstances," Patterson explained in mid-1943, "we do not get around to deal with contractors until after the profits have been realized."[101]

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[94] (1) Patterson's Testimony, 19 Mar 42. In H Comm on Naval Affs, 77th Cong, 2d sess, *Hearings to Permit the Performance of Essential Labor on Naval Contracts*, pp. 2474–75. (2) Knox' Testimony, 13 Apr 42. In H Comm on Naval Affs, 77th Cong, 2d sess, *Hearings on Sundry Legislation Affecting the Naval Establishment 1942*, pp. 2991–92.

[95] (1) Forrestal's Testimony, 19 Mar 42. In H Comm on Naval Affs, 77th Cong, 2d sess, *Hearings on Sundry Legislation Affecting the Naval Establishment 1942*, p. 2495.

[96] H Comm on Naval Affs, 78th Cong, 1st sess, *Hearings* on H R 30, II, p. 404.

[97] Testimony of Representative Francis Case, 3 Apr 42. In S Comm on Appns, 77th Cong, 2d sess, *Hearings* on H R 6868, Part 2, pp. 211–12.

[98] (1) 56 *Stat.* 245. (2) 56 *Stat.* 982. (3) Smith, *The Army and Economic Mobilization*, pp. 354–56.

[99] Miller, *Pricing of Military Procurements*, p. 174.

[100] OCE Circ Ltr 2678, 13 Jan 44.

[101] Patterson's Testimony, 29 Jun 43. In H Comm on Naval Affs, 78th Cong, 1st sess, *Hearings* on H Res 30, V, p. 908.

Renegotiation proceedings might follow one of three patterns: renegotiating contractors on an overall basis; considering several contracts as a group; or considering contracts individually. The War, Navy, and Treasury Departments and the Maritime Commission agreed to use a company's overall federal business for a given fiscal year as the basis of renegotiation and to assign each company to the department for which it had done the most work.[102] Patterson adopted a slightly different procedure for certain construction and architect-engineer contracts. When most of a company's war work was "covered by a few individual contracts," and if this company had no business with other government departments, the Under Secretary permitted the Engineers to renegotiate single contracts or to treat several as a unit.[103] He made a second exception of joint venture contracts, directing Reybold to consider them as units rather than as parts of the overall business of the participating firms.[104] As it turned out, the Corps renegotiated construction agreements mostly on individual-contract and joint venture- or group-contract bases.[105]

Three days before the passage of the first renegotiation act, Patterson organized the War Department Price Adjustment Board, with Maurice Karker as chairman. On 30 June 1942 the Under Secretary designated the board as the co-ordinating agency for War Department renegotiation and assigned it these duties: establishing policies and procedures; assigning cases to the supply services for renegotiation; reviewing renegotiation settlements; and, in some instances, conducting renegotiation itself. The main work of renegotiation he delegated to the supply services.[106] On 3 July 1942, Somervell told Reybold to establish "such Price Adjustment Sections as may be necessary to renegotiate contracts with such contractors and subcontractors as may be assigned . . . by the War Department Price Adjustment Board."[107]

The Chief created two Price Adjustment Boards, one for supply and one for construction and architect-engineering. He called upon veteran negotiator Harry W. Loving to head the latter group. He also set up a Cost Analysis Section in the Administrative Division to supply the boards with the "factual basis for conducting renegotiation."[108] When it appeared that the Engineers would have more construction cases than the Washington office could handle, General Robins decentralized part of the work. Formation of a Price Adjustment Board in each division during October 1942 completed the Corps renegotiation structure.[109]

To acquaint contractors with renegotiation, Loving scheduled meetings in

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[102] *Joint Statement by the War, Navy, and Treasury Departments and the Maritime Commission: Principles, Policies, and Interpretations under Section 403 of the Sixth Supplemental National Defense Appropriation Act, 1942* (Washington, 31 Mar 42), p. 7. Cited hereinafter as *Joint Statement WD, ND, TD, and MC.*

[103] Memo, SOS for Reybold, 16 Sep 42. 161 Part 1.

[104] Memo, Patterson for Reybold, 8 Aug 42. 161 Part 1.

[105] Memo, Loving for WDPAB, 26 Apr 44. 161 Part 6.

[106] Memo, Patterson for Somervell, 30 Jun 42. 161 Part 1.

[107] Memo, Somervell for Reybold, 3 Jul 42. 020 (PAB).

[108] (1) OCE Circ Ltr 1927, 10 Aug 42. (2) WD Press Release, 11 Aug 42.

[109] (1) Ltr, Robins to MRD, 21 Aug 42. 167 (MRD). (2) OCE, Circ Ltr 2039, 10 Oct 42.

San Francisco, Dallas, Atlanta, Chicago, New York, and other cities where Robins had established Division Price Adjustment Boards. Division engineers issued public invitations, and local chapters of the AGC and AIA notified their members. Attendance, Loving estimated, "ranged from about 250 to more than 600 contractors, architects, engineers, and supply contractors who evidenced considerable interest in this controversial legislation." Commenting on the value of these get-togethers, he wrote:

> At each meeting I attempted to explain the reason for the legislation and general provisions of the Renegotiation Law and principles to be followed . . . in our dealings with firms or individuals assigned to the Chief of Engineers for statutory renegotiation. . . . In my opinion these meetings tended to dispel the fear of contractors and resulted in a greater degree of cooperation than might have resulted had we not attempted to explain the law and our philosophy and manner in which we would administer the law.[110]

Neither Loving nor anyone else could overcome industry's opposition to the renegotiation statute, which most contractors regarded as a scheme to strip them of their earnings and to leave them practically broke. But Loving was able to offer assurance that the Corps would make every effort to be fair.[111]

The Army's price adjustment organization worked from the top down. The services reported cases showing or likely to show excessive profits to Chairman Karker of the War Department Price Adjustment Board. Karker checked to see if the company in question had held contracts with other government departments. If it had, the War Department Board, in co-operation with similar boards in the other departments, decided which agency had primary interest in the case. Karker turned each case assigned to the Army over to the service with which the contractor had done the largest volume of business, or in the case of construction contracts to the Corps of Engineers. At first, the Loving Board handled larger and more complicated cases, and referred simpler ones, those to be renegotiated on an individual contract basis, to the divisions. But as time went on, Loving began giving many of the tougher overall renegotiations to the divisions as well.[112] "As a matter of fact," he pointed out, "at the height of the program, we assigned many cases to Division Price Adjustment Boards without knowing at the time the assignment was made whether the contractor would be renegotiated on an individual contract or overall basis."[113] More and more of the work load shifted to the field. Before long the divisions were renegotiating 90 percent of the cases assigned to the Engineers.[114]

All Engineer Price Adjustment Boards followed the same general procedure. A contractor selected for renegotiation had to turn in balance sheets dating back a number of years. If his figures seemed questionable, his accounts received a de-

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[110] Comments of Harry W. Loving on MS, 1955. Cited hereinafter as Loving Comments.

[111] (1) Interv with Herbert E. Foreman, 26 Jan 62. (2) Speech by H. W. Loving at Adolphus Hotel, Dallas, Tex., 14 Dec 42. Loving Papers.

[112] (1) Memo, Constr Div, OCE, for WDPAB, 10 Aug 42. 161 Part 1. (2) Pamphlet, WDPAB (Rev.), 20 Nov 42, sub: Principles, Policy, and Procedure to be Followed in Renegotiation. EHD Files. (3) OCE Circ Ltr 2089, 10 Oct 42.

[113] Loving Comments.

[114] (1) Memo, Loving for Reybold, 5 May 43. 161 Part 3. (2) Ltr, Reybold to GLD, 10 Sep 43. 161 (GLD) Part 1.

tailed audit. Company records plus information gleaned from other sources guided the Engineers in arriving at a tentative basis of settlement. When a board found no evidence of excessive profits, it dropped the case; otherwise, it called the contractor into conference. Two or three meetings usually produced a voluntary settlement, but when a contractor balked, the board set the amount he had to refund by unilateral decision. The Engineers might force recalcitrant contractors to relinquish excessive profits by withholding payments still due them. Settlements concluded on a group or individual contract basis went to Reybold for approval; those involving overall profits, to Patterson.[115]

Renegotiation went slowly at first. By May 1943, the Engineers had settled less than 20 percent of the cases assigned to them; and to make matters worse, assignments more than doubled during June. Renegotiation gained momentum throughout the summer, but efforts to eliminate the staggering backlog failed. A number of factors contributed to the lag in price adjustment work. The Engineers could not obtain enough qualified personnel; untried procedures frequently proved inadequate or unduly complicated; contractors often refused to co-operate; and the Karker Board failed to furnish criteria for construction contracts.[116] In time, Loving and his associates developed workable rules and published a renegotiation manual.[117] Congress at length adopted legislation which smoothed away other difficulties. But some troubles disappeared only when the volume of construction declined and fewer renegotiation cases clogged the price adjustment system.

Perhaps the most persistent problem was that of personnel. The Engineers sought men with broad experience and uncommon ability for price adjustment jobs—attorneys, businessmen, accountants, and former comptrollers of large corporations.[118] General Robins wanted men possessing "judgment, analytical ability, tact, firmness, patience and personality."[119] Persons with the requisite qualifications might earn as much as $50,000 per year in private industry; yet, top price adjustment jobs carried a salary of $5,600. Many prominent men nevertheless agreed to serve as civilian price adjusters; others accepted the few commissions Loving was able to offer. Still, renegotiation suffered throughout from a chronic manpower shortage.[120]

Karker's mode of operation placed an unnecessary burden on the Engineers' slim renegotiation staffs. His War Department Board assigned cases without first making sure that profits were excessive. Almost three-quarters of the cases forwarded to the Engineers re-

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[115] (1) WDPAB Instructions, PAB–2, 20 Nov 42. EHD Files. (2) Ltr, Loving to GLD, 6 Nov 42. 161 (GLD) Part 1. (3) Incl with Memo, WDPAB for OCE, 15 Sep 43. 161 Part 5. (4) Memo, Purchases Div, SOS, for Reybold, 16 Sep 42. 161 Part 1.

[116] (1) Memo, Robins for Patterson, 8 May 43. 161 Part 3. (2) Ltr, Adm Div, OCE, to MAD, 5 Jul 43. 161 (MAD). (3) Memo, Loving for WDPAB, 18 Sep 43. 161 Part 5.

[117] Loving Comments.

[118] Ltr, OCE, Adm Div to NAD, 27 Apr 43. 210.3 (Engrs, Off, Chief of) Part 1.

[119] Memo, Robins for Patterson, 8 May 43. 161 Part 3.

[120] (1) H Comm on Naval Affairs, 78th Cong, 1st sess, *Hearings* on H Res 30, Vol II, Jun 1943, pp. 1231–36. (2) Testimony of Maurice Karker, Chairman, WDPAB, 23 Jun 43. S Comm on Appns, 78th Cong, 1st sess, *Hearings* on H R 2996, p. 134. (3) Memo, Price Adj Sec, OCE, for Mil Personnel Br, Adm Div, 19 May 43. 210.3 (Engrs, Off, Chief of) Part 1.

vealed no outsize earnings, and the time, money, and effort that went into investigations were wasted. By demanding numerous detailed reports, Karker further reduced the effectiveness of the Engineer effort.[121] Perhaps a partial explanation of the Karker Board's performance was to be found in one construction man's description of its personnel: "young attorneys who had been somebody's assistant."[122] Like Loving, Karker had trouble finding assistants who were equal to renegotiation tasks.

Contractors often added to the strain. Many unintentionally delayed proceedings by furnishing incomplete information. Hope that Congress might repeal or amend the renegotiation statute caused others to drag their feet. A firm might postpone its renegotiation conference by failing to supply the required information and then stall proceedings indefinitely with endless questions and needless debate.[123] Loving later said of this situation:

> It is true that many contractors resisted renegotiation in the beginning and that a few resisted to the bitter end. On the other hand, persistence on our part and a change in personnel conducting renegotiation finally resulted in a meeting of minds as to extent of refund that should be made. As I recall . . . in the latter part of 1944, there were less than 60 cases where we were unable to reach a settlement and which we had to refer to higher authority for resolution.[124]

New regulations and an amended renegotiation law facilitated price adjustment. Decentralization reduced the number of reports to Karker. The Renegotiation Act of 1944 swept away many remaining obstacles: it appreciably cut the caseload by excluding contractors whose business with the government was less than $500,000 a year and by permitting exemption of certain fixed-price contracts; and it expedited renegotiation by requiring contractors to file reports on their wartime business.[125]

Absence of a yardstick for measuring excessive profits was the most formidable obstacle to renegotiation of construction contracts. Criteria adopted by Congress and the heads of government departments were aimed at manufacturers rather than at builders.[126] Failure to define fair profits on construction work caused serious complications, for it left the Price Adjustment Boards without a guide to use in selecting cases for renegotiation, in fixing a reasonable profit, and in justifying their decisions, and it prevented contractors from figuring in advance how much profit they would be able to retain.[127] Loving attributed two "major troubles" of price adjustment to lack of criteria: first, a fear on the part of contractors that they and their competitors would receive unequal treatment caused "procrastination, extended argument, and post-renegotiation criticism"; and, second, occasional disap-

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[121] (1) Ltr, Loving to GLD, 10 Nov 43. 161 (GLD) Part 2. (2) 1st Ind, 11 Jan 44, on Memo, Renegotiation Div, ASF, for Reybold, 3 Jan 44. 161 Part 6. (3) Memo, Loving for WDPAB, 18 Sep 43. 161 Part 5.

[122] Foreman Interv, 26 Jan 62.

[123] (1) Ltr, Loving to GLD, 3 May 43. 161 (GLD) Part 1. (2) WD Press Release, 26 Jul 43. EHD Files.

[124] Loving Comments.

[125] (1) Memo, OCE for Dir of Purchases, ASF, 29 Apr 43. 161 Part 3. (2) Memo, USW for Chiefs of Supply Services, 8 May 43. 161 Part 3. (3) 58 *Stat.* 78. (4) OCE Circ Ltr 3314, 16 Sep 44.

[126] (1) 58 *Stat.* 78. (2) *Joint Statement WD, ND, TD, and MC*, pp. 7–8.

[127] (1) Memo, Contracts and Claims Br, Adm Div, OCE, for Proc and Distrib Div, SOS, 16 May 42. 161 (Sacramento DO). (2) Ltr, MtD to OCE, 2 Nov 42. 161 (MtD) 5/42–12/42.

proval by reviewing authorities of settlements, made "in light of existing generalities as to 'excessive profits,' " created confusion and delay and required negotiators to begin all over again.[128]

Left largely to their own devices, the Engineers gradually evolved workable formulas for construction contracts. They recognized that the difference between reasonable and excessive profits would vary widely, depending on the character and size of the project; on the time, capital, and equipment required; on the risk and the amount of subcontracting involved; and on the contractor's performance record. The fee or profit on fixed-fee contracts derived from these very factors, with the obvious exception of the performance record. The Engineers therefore adopted the attitude that if the fee matched the War Department schedule, and if the contractor had performed satisfactorily, the contract would not be renegotiated. They maintained:

> The contractor who by reason of having a highly efficient organization, and by superior management was able to keep his nonreimbursable expenses at a comparatively low point and thereby conserved a higher proportion of his fee as profit, should not be penalized by having his profit considered as excessive, because it was higher than that of other contractors with similar contracts, especially since in all probability the very elements of high efficiency and superior management which resulted in those higher profits had resulted in . . . reduced costs, higher quality of workmanship, and earlier beneficial use.[129]

This standard applied to fixed-fee architect-engineer as well as construction contracts.

The problem of fixed-price profits was less easy to solve. Here, the Engineers had no existing standard of reasonable earnings as they had in the schedules of allowable fixed fees; their task was to create one. To help with this job, Loving called on experts in government, industry, and the professions. He asked division and district engineers, members of OCE, and a number of independent contractors what they thought would constitute a reasonable, and what an excessive, profit under emergency conditions. He conferred with representatives of the American Society of Civil Engineers and the American Institute of Architects on the question of architect-engineer profits and queried professionals about their prewar earnings. On the basis of this information, he drew four schedules showing the range of allowable profits for architect-engineer, building, utility, and heavy construction contracts. These schedules were merely guides; the allowable profit depended upon the "facts and circumstances" of each case. Although costs, hazards, capital investment, and equipment all entered into their decisions, Price Adjustment Boards gave particular weight to contractors' efficiency and the amount of work sublet.[130]

By late 1944, when ill health forced Loving to resign, the hardest part of the job was over, and the Engineer machinery was functioning smoothly. Contractors had already refunded many millions and the total would continue to rise. Presenting Loving with the

[128] Ltr, Loving to Dir Purchases, ASF, 17 Apr 43. 161 Part 3.

[129] OCE, Dir of Readjustment, Price Adj Div, History of Renegotiation of War Contracts under the Renegotiation Acts of 1942 and 1943, 31 May 46, pp. 30, 33, 40, and 34. 161 Bulky.

[130] *Ibid.*, pp. 30–33 and 42.

emblem for Exceptional Civilian Service, General Reybold praised his work in formulating workable price adjustment procedures and his success in carrying out "an extensive national program to obtain understanding and acceptance of the Renegotiation Act by the construction industry."[131] Succeeding Loving in turn were Lt. Col. Carl M. Sciple, Col. John B. Heroman, Jr., and Forrest S. Harvey, all of whom served with distinction.

By May 1946 the Engineers had recaptured $114,296,000 in construction profits. For every dollar recovered, they paid out two cents in overhead. Renegotiation of almost 10,000 cases had revealed 1,187 instances of excessive profits on fixed-price contracts and five on fixed-fee. The fixed-fee contracts, amounting to a total of $249,285,000, had originally shown profits of $5,351,000. Renegotiation recovered $879,000. The fixed-price contractors selected for renegotiation had earned $304,787,000 on contracts totaling $2,120,518,000. Renegotiation cut their profits by $113,317,000.[132]

Price adjustment revealed a wide difference between levels of profit on fixed-fee and fixed-price jobs. In cases showing excess profits, fixed-price earnings were 14.4 percent of total contract prices before renegotiation; fixed-fee were 2.5 percent. Price adjustment reduced these figures to 9.63 percent and 1.80 percent, respectively. Cases cleared by the Price Adjustment Boards, in other words, those which showed no excessive profits, were perhaps more typical. Here, fixed-fee contracts yielded earnings of 1.76 percent; fixed-price, earnings of 5.65 percent.[133]

At the same time that it reduced the overall cost of construction, renegotiation narrowed the differential between fixed-price and fixed-fee profits. With the wartime scarcity of construction talent and the extreme pressure for getting projects promptly under way, lump sum contractors could sometimes make a killing. The pay for fixed-fee work was low even by peacetime standards. Yet, by and large, it was the fixed-fee contractors who carried the heavier burdens and achieved the greater speed. Furthermore, contrary to a widely held belief, the cost of fixed-fee construction was generally no higher, and in many cases was lower, than the cost of comparable lump sum work. Viewed in this light, the controversial renegotiation program seemed equitable.

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[131] WD Press Release, n.d., sub: Civilian Award to Harry W. Loving. Loving Papers.

[132] OCE, History of Renegotiation, pp. 52 and 55.

[133] *Ibid.*, pp. 52–53.